

CLAIMS

1. A DNA comprising a nucleotide sequence encoding the following polypeptide

(a) or (b):

(a) a polypeptide, consisting of an amino acid sequence identical to or substantially identical to the amino acid sequence represented by SEQ ID NO: 2; or

(b) a polypeptide, consisting of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO: 2 by deletion, substitution, or addition of one or a plurality of amino acids and having biological activity substantially equivalent to the functions of the polypeptide (a).

2. A DNA (c) or (d) as follows:

(c) a DNA, comprising the nucleotide sequence represented by SEQ ID NO: 1 and containing the nucleotide sequence that encodes the amino acid sequence represented by SEQ ID NO: 2; or

(d) a DNA, hybridizing under stringent conditions to a DNA consisting of a nucleotide sequence complementary to that of the DNA (c) and encoding a protein having biological activity substantially equivalent to the functions of the polypeptide consisting of the amino acid sequence represented by SEQ ID NO: 2.

3. A gene, comprising the DNA of claim 1 or claim 2.

4. An expression vector, comprising the DNA of claim 1 or claim 2.

5. A transformant, comprising the vector of claim 4.

6. A protein, comprising the following polypeptide (a) or (b):

(a) a polypeptide, consisting of an amino acid sequence identical to or substantially identical to the amino acid sequence represented by SEQ ID NO: 2; or

(b) a polypeptide, consisting of an amino acid sequence derived from the amino acid sequence represented by SEQ ID NO: 2 by deletion, substitution, or addition of one or a plurality of amino acids and having biological activity substantially equivalent to the functions of the polypeptide (a).

7. A recombinant protein, which is obtained by causing the expression of a gene comprising the DNA of claim 1 or claim 2.
8. An antibody, binding to the protein of claim 6 or claim 7.
9. The antibody of claim 8, which is a monoclonal antibody.
10. An antibody, binding to a peptide of SEQ ID NO: 3 or 4.
11. An anti-carcinoma agent, comprising the antibody of any one of claims 8 to 10.
12. The anti-carcinoma agent of claim 11, wherein carcinoma is lung carcinoma.
13. The anti-carcinoma agent of claim 11, wherein carcinoma is breast carcinoma.
14. The anti-carcinoma agent of claim 11, wherein carcinoma is prostatic adenocarcinoma.
15. The anti-carcinoma agent of claim 11, wherein carcinoma is pancreatic carcinoma.
16. A method for screening for a substance binding to the protein of claim 6 or claim 7 or a partial peptide thereof, comprising the steps of:
 - (a) bringing a test sample into contact with the protein or a partial peptide thereof;
 - (b) detecting binding activity of the protein or the partial peptide thereof with the test sample; and
 - (c) selecting a compound having activity to bind to the protein or the partial peptide thereof.
17. The screening method of claim 16, wherein the partial peptide is a peptide consisting of the amino acid sequence represented by SEQ ID NO: 3 or 4.
18. A polynucleotide, hybridizing under stringent conditions to the DNA of claim 1 or claim 2 and consisting of at least 15 nucleotides.
19. The polynucleotide of claim 18, encoding the amino acid sequence represented by SEQ ID NO: 3 or 4.
20. A method for detecting carcinoma using the polynucleotide of claim 18 or claim 19 as a probe, comprising the steps of:

- (a) bringing a test sample into contact with the polynucleotide; and
- (b) detecting activity of hybridization between the polynucleotide and the test sample.